

# **JAVA™ BYTECODE INSTRUCTION FOR RETRIEVING STRING REPRESENTATIONS OF JAVA™ OBJECTS**

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## **ABSTRACT OF THE DISCLOSURE**

Improved techniques for representing JAVA™ objects as strings are disclosed. An inventive JAVA™ Bytecode instruction suitable for execution by a JAVA™ virtual machine is disclosed. The inventive JAVA™ Bytecode instruction can be executed by a JAVA™ virtual machine to represent  
10 JAVA™ objects as strings. Moreover, JAVA™ objects can be represented as strings without invoking the JAVA™ “to\_string” method which is conventionally used. This means that the costly overhead associated with repeatedly invoking JAVA™ method “to\_string” is avoided. In other words, operations that are conventionally performed each time the JAVA™  
15 “to\_string” method is invoked need not be performed. As a result, the performance of virtual machines, especially those operating with limited resources (e.g., embedded systems) can be improved.